

Work Order ID 156316

Friday, January 27, 2017 12:54:10 PM

156316

Page 1

Item ID: 646.3001 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Lower Cable Cutter Assembly
Start Date: 1/19/2017 Start Qty: 2.00 *?
Required Date: 2/1/2017 Req'd Qty: 2.00 *?
Reference: Cust Item ID:
Customer:

Approvals: Process Plan: DAS 21 9-89 Date: FEB 01 2017 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
646.3000	N/C

110	Pick Kit	0.00
-----	----------	------

110

Packaging

Memo

0.01

Packaging

2 DAS 6 9-89 FEB 15 2017

120

0.00

120

Small Fab

Memo

0.24

Small Fab

Assemble as per dwg and apply loctite 598 on all faying surfaces shown on dwg per note 7.

A/R RTV LOCTITE 598:

exp. date: 10/18 136701

2x 17/03/08

DAS
36
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						

Work Order ID 156316

Friday, January 27, 2017 12:54:10 PM

156316

Page 2

Item ID: 646.3001

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Lower Cable Cutter Assembly

Start Date: 1/19/2017 Start Qty: 2.00

2

Cust Item ID:

Required Date: 2/1/2017 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC5- Inspect part completeness to step on W/O

0.00

130

QC

Memo

0.07

Quality Control

2

EB

17-03-09

140

Identify as per dwg & Stock Location: CCF018

0.00

140

Packaging

Memo

0.00

Packaging

***IDENTIFY AS PER APICAL MPP-120 BY STAMPING THE P# AND
REV***

2

DAS
6
9-89

MAR 10 2017

150

QC21- Final Inspection - Work Order Release

0.00

150

QC

Memo

0.01

Quality Control

17/3/14

DAS
21
9-89

MAR 13 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
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Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process	OTHER :							
Misidentified ☐	☐ Past Due								

Picklist Print

Friday, January 27, 2017 12:54:10 PM

Page 1
3

Work Order ID: 156316

156316

Parent Item: 646.3001

646.3001

Parent Item Name: Lower Cable Cutter Assembly

Start Date: 1/19/2017

Required Date: 2/1/2017

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A 12.10.19 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MS21042L08		Purchased	No				Each	844.0000		38			
										**			
				<u>Location</u>			<u>Loc Qty</u>	<u>Loc Code</u>					
				GA			503						
				m135274			18						
				m135978			485						
				ST303			341						
				m136301			174						
				m136537			7						
				m136643			160						
646.3010		Manufactured	No			110	Each	23.0000	1	2			
										**			
				<u>Location</u>			<u>Loc Qty</u>	<u>Loc Code</u>					
				cck102			23						
				142499			3						
				151681			20						
646.3011		Manufactured	No			110	Each	6.0000	1	2			
										**			
				<u>Location</u>			<u>Loc Qty</u>	<u>Loc Code</u>					
				cck102			6						
				148577			6						

DAS
6
9-89
FEB 15 2017

BLAST

FEB 15 2017

DAS
6
9-89

2

DAS
6
9-89
FEB 15 2017

2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :						
Misidentified ☐	Past Due ☐							

Picklist Print

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Page 2

Work Order ID: 156316

156316

Parent Item: 646.3001

646.3001

Parent Item Name: Lower Cable Cutter Assembly

Start Date: 1/19/2017

Required Date: 2/1/2017

Start Qty: 2.00

Required Qty: 2.00

646.3012 Manufactured No

110 Each 13.0000 1 2

646.3012

Lower Guide

**

DAS
6
9-89

FEB 15 2017

Location

Loc Qty

Loc Code

CCK013

13

150212

1

151652

12

646.3013 Manufactured No

110 Each 7.0000 1 2

646.3013

Blade

**

DAS
6
9-89

FEB 15 2017

Location

Loc Qty

Loc Code

cck102

7

150610

7

646.3014 Manufactured No

110 Each 12.0000 1 2

646.3014

Blade

**

DAS
6
9-89

FEB 15 2017

Location

Loc Qty

Loc Code

cck102

12

151659

12

646.3015 Manufactured No

110 Each 0.0000 1 2

646.3015

Blade

**

DAS
6
9-89

FEB 15 2017

MS27039-08-19

Purchased No

110 Each 305.0000 19 38

MS27039-08-19

Screw

**

DAS
6
9-89

FEB 15 2017

Location

Loc Qty

Loc Code

GA

155

m135948

155

ST277

150

m136537

150

Friday, January 27, 2017 12:54:10 PM

Shop Packet Print

Page 2

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
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LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process	OTHER :							
Misidentified ☐	☐ Past Due								

Picklist Print

Friday, January 27, 2017 12:54:10 PM

Page 3

Work Order ID: 156316

156316

Parent Item: 646.3001

646.3001

Parent Item Name: Lower Cable Cutter Assembly

Start Date: 1/19/2017

Required Date: 2/1/2017

Start Qty: 2.00

Required Qty: 2.00

NAS1149FN832P

Purchased

No

110

Each

1,287.000

38

76

NAS1149FN832P

Washer

DAS

36

9-89

Location

Loc Qty

Loc Code

GA

564

M135058

232

M136182

332

ST263

723

M136182

723

76

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

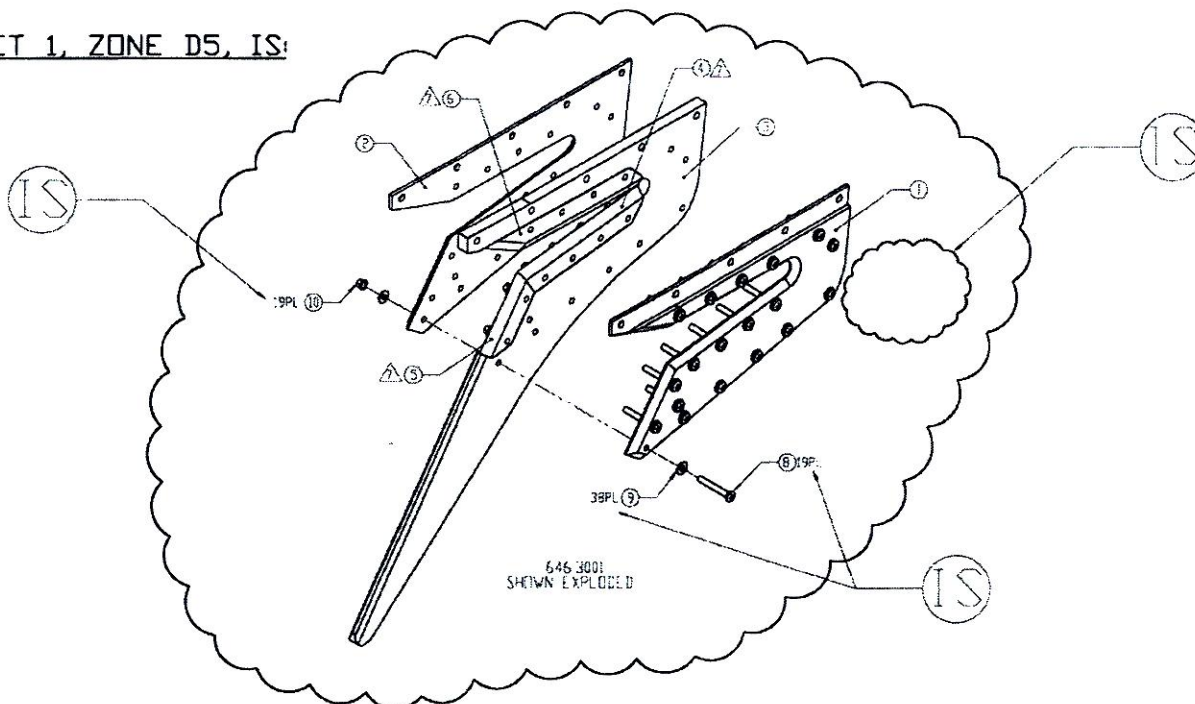
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 02195		SHEET 1 OF 4	
	DWG NO. 646.3000	REV: N/C	PREPARED BY S. HUFF	DATE: 01/05/09
	EFFECT ON DWG ☐ INC. ☒ UNINC.			
DWG TITLE: LOWER CUTTER ASSY				
APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER	
REASON: REMOVED RIVETS IN FAVOR OF ADDITIONAL SCREWS				
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE				

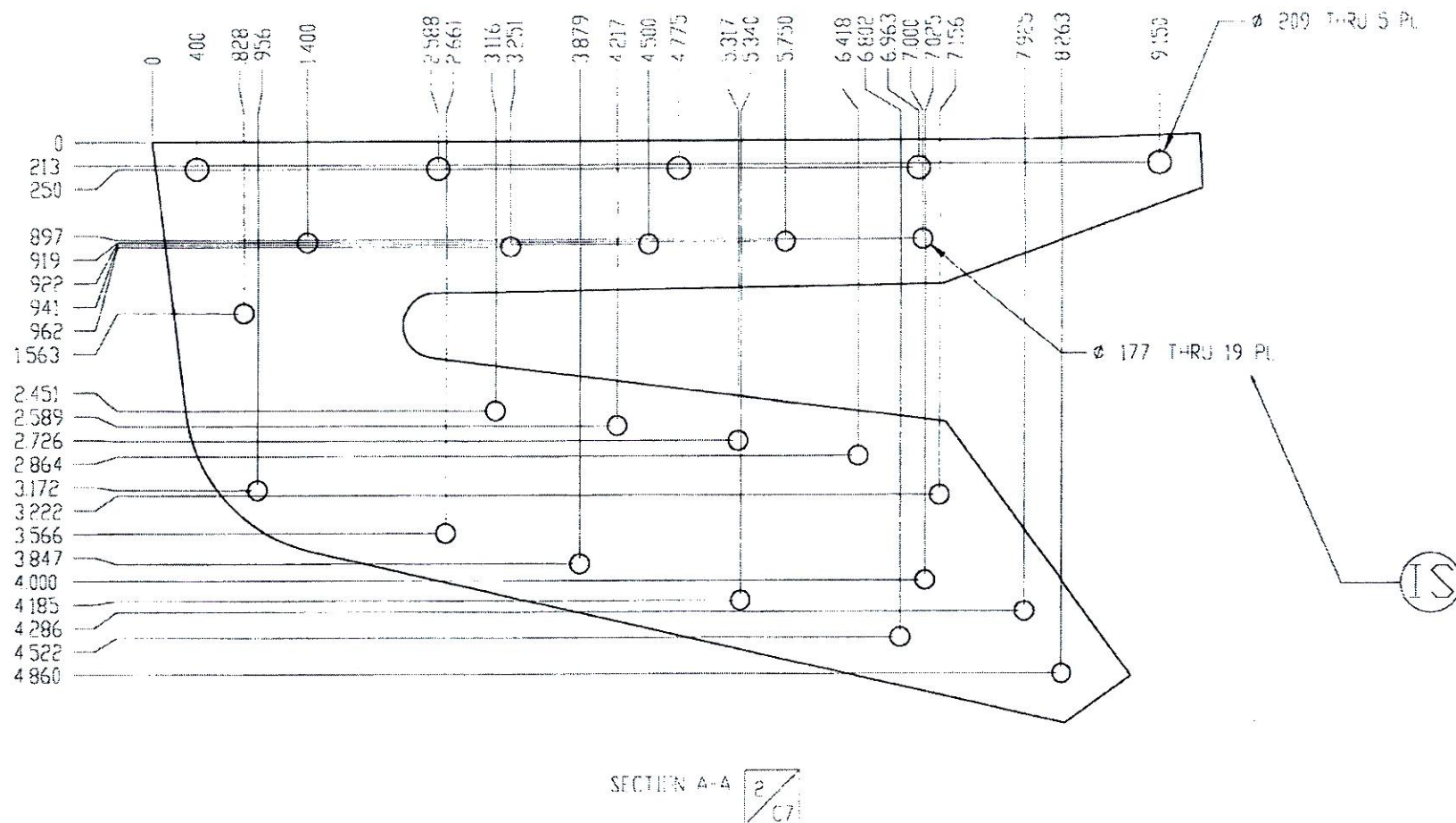
SHEET 1, ZONE D5, IS:



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 156316 MJS
1702-01

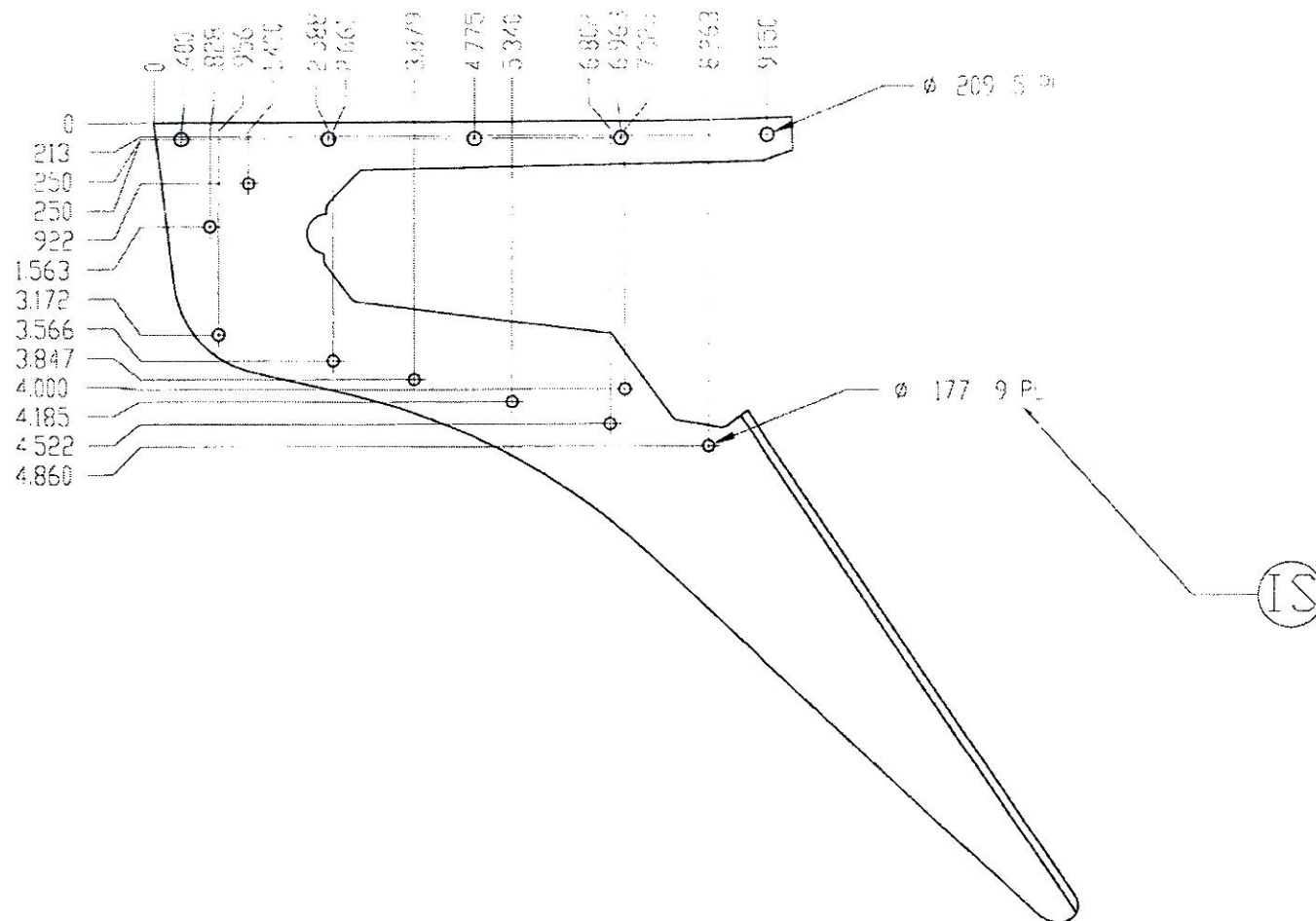
10	R	601.1541	19	LOCKNUT	MS21042L08
9	R	601.2764	38	WASHER	NAS1149FN832P
8	R	601.2765	19	SCREW	MS27039-0819
7	D	601.2766	2	RIVET	MS20470AD5-18
			.3001		
F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
DOCUMENTS EFFECTED: ☐ MDL ☒ INSTALL INSTRUC ☒ ICA ☐ FMS ☒ BOM					
CHANGE CATEGORY: ☐ MAJOR ☒ MINOR					
DER REVIEW REQUIRED: ☐ YES ☒ NO					

SHEET 3 IS:



F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
-----	----	-------------	-----	-------------	------------------------

SHEET 5 IS:



SECTION 1-4



F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
-----	----	-------------	-----	-------------	------------------------

Technical drawing of a roof truss section. The drawing shows a cross-section of a roof structure with a sloped top chord and a horizontal bottom chord. The top chord is labeled with a slope of (66.5°) . The bottom chord is labeled with a slope of 45.0° . The drawing includes various dimensions and material specifications:

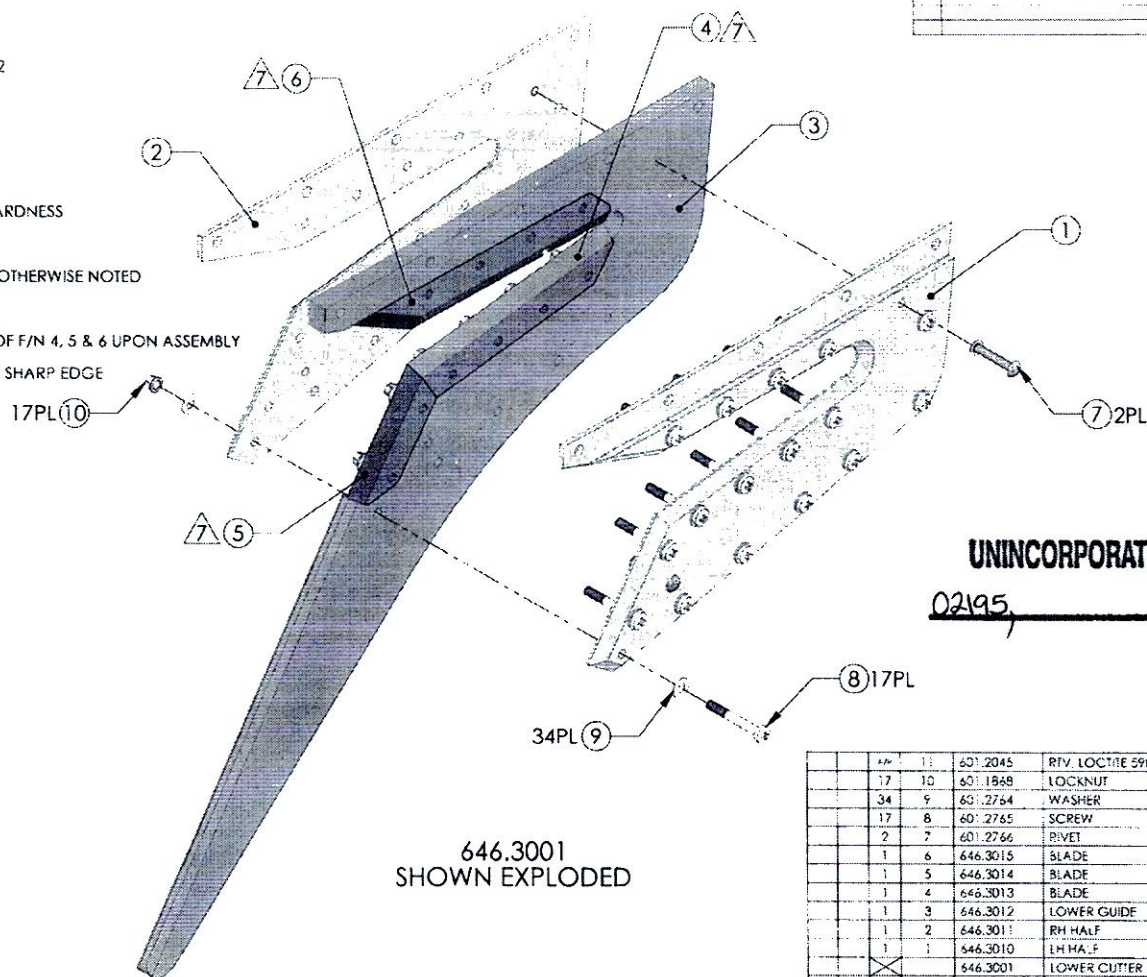
- Top chord: 240 ± 0.02 (width), 94 (height), 576 (height), $R125$ (radius), 2 PL (material).
- Bottom chord: 1109 ± 0.02 (width), 3 PL (material), 4396 (length), 480 (length).
- Internal dimensions: 524 (width), 635 ± 0.02 (width).
- Material specifications: $\phi 177$ 4 PL (material), $R125$ 2 PL (material).
- Standards: IS (Indian Standard).

F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION

ALL INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES AND IS NOT TO BE REPRODUCED IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES & ASSOCIATES.

NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL-P-23377J TYPE I CLASS N
- 3 MATERIAL: AISI A2 TOOL STEEL
CONDITION: ANNEALED
POST PROCESS: HEAT TREAT TO 58-62 Rc ROCKWELL HARDNESS
- 4 FINISH: PRIME IAW MIL-P-23377J TYPE I CLASS N
- 5 DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED
- 6 IDENTIFY IAW MPP-120
- 7 APPLY F/N 11 AS REQUIRED TO ALL FAYING SURFACES OF F/N 4, 5 & 6 UPON ASSEMBLY
- 8 CUTTING EDGE INTENDED TO BE SHARP. DO NOT BREAK SHARP EDGE



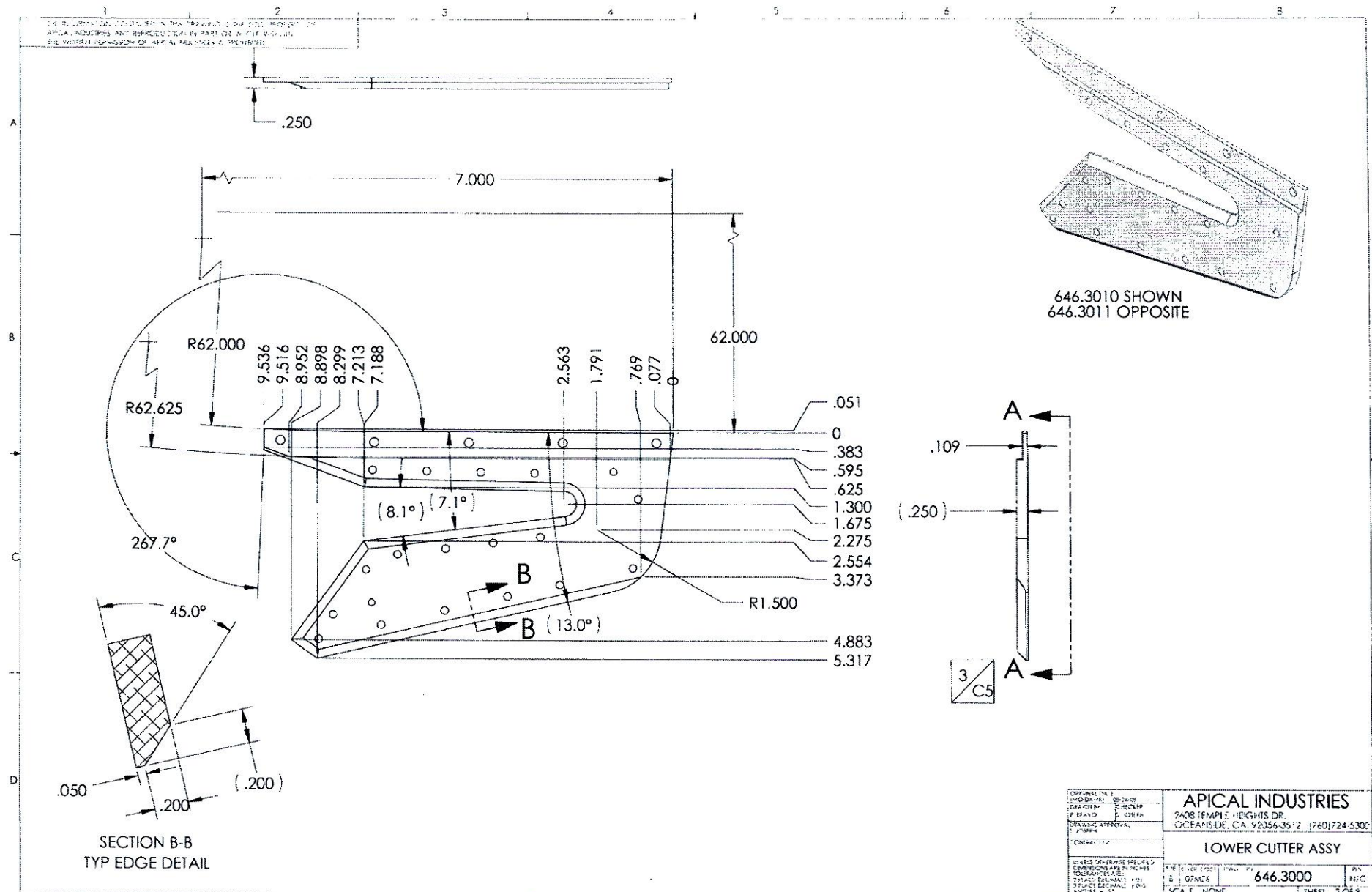
646.3001
SHOWN EXPLODED

UNINCORPORATED ECN(S)

02195

QTY	REV	FIND #	PART #	DESCRIPTION	MAT'L	SPEC
1	1		601.2045	RTV, LOCTITE 598		
17	10		601.1868	LOCKNUT	AL-6061-T6	
34	9		601.2764	WASHER	AL-6061-T6	
17	8		601.2765	SCREW	AL-6061-T6	
2	7		601.2766	RIVET	AL-6061-T6	
1	6		646.3015	BLADE		
1	5		646.3014	BLADE		
1	4		646.3013	BLADE		
1	3		646.3012	LOWER GUIDE		
1	2		646.3011	RH HALF		
1	1		646.3010	LH HALF		
1			646.3001	LOWER CUTTER ASSY		
PARTS LIST						
NEXT ASSY (S)				APICAL INDUSTRIES		
646.4000				2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760)724-5300		
				LOWER CUTTER ASSY		
				REV: 8 02/2006 646.3000 N/C		
				SCALE: NONE SHEET 1 OF 8		

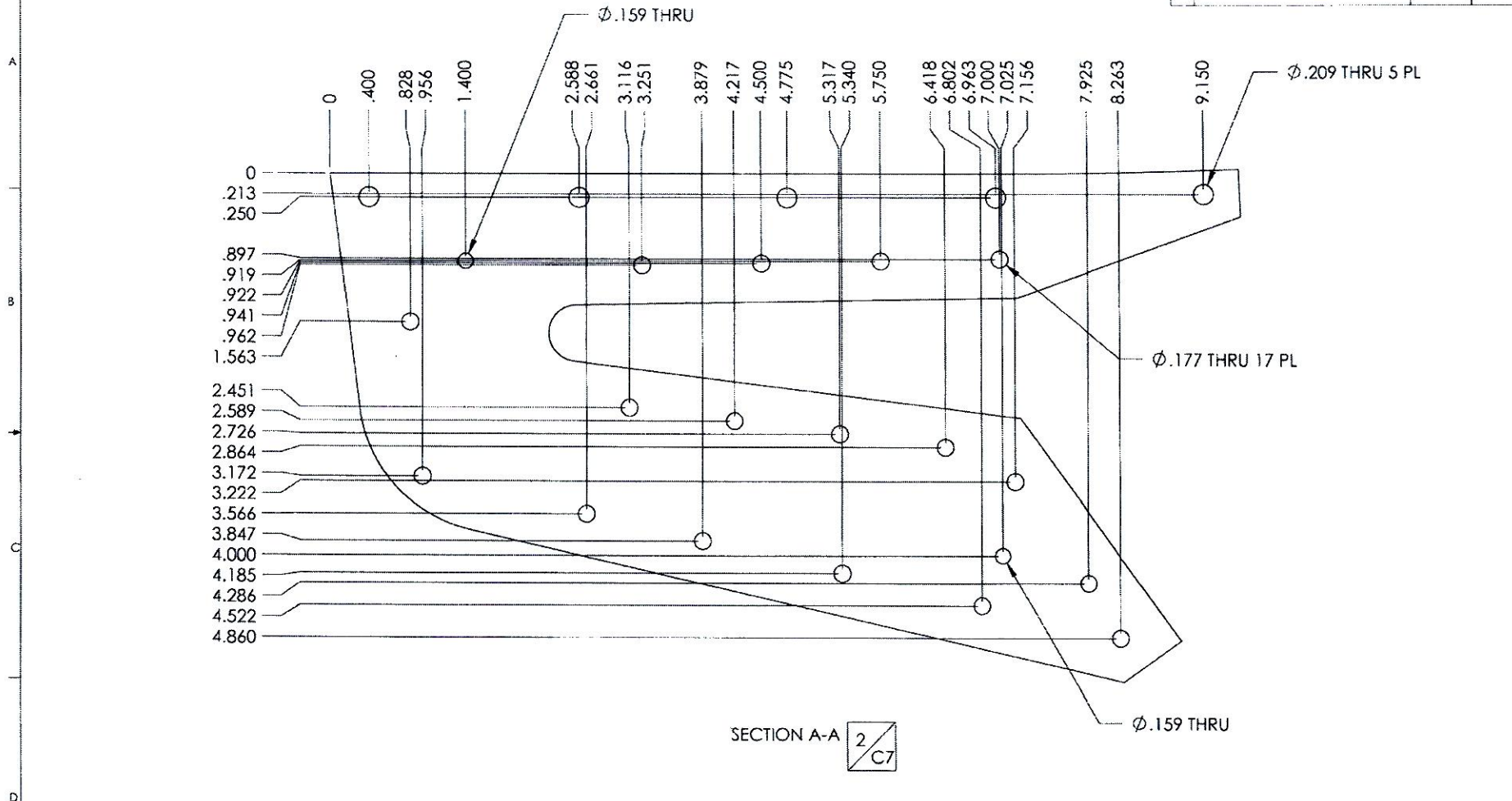
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COMPANY: THE E MODIFIED: 08/20/09 DATE: 08/20/09 P. 00100 DRAWING APPROVAL: P. 00100		APICAL INDUSTRIES 2408 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760)724-5300	
CONSTRUCTION: 1. Holes on reverse specify dimensions in inches unless otherwise specified. 2. Holes on reverse specify dimensions in inches.		LOWER CUTTER ASSY 646.3000 SCALE: NONE SHEET 2 OF 8	

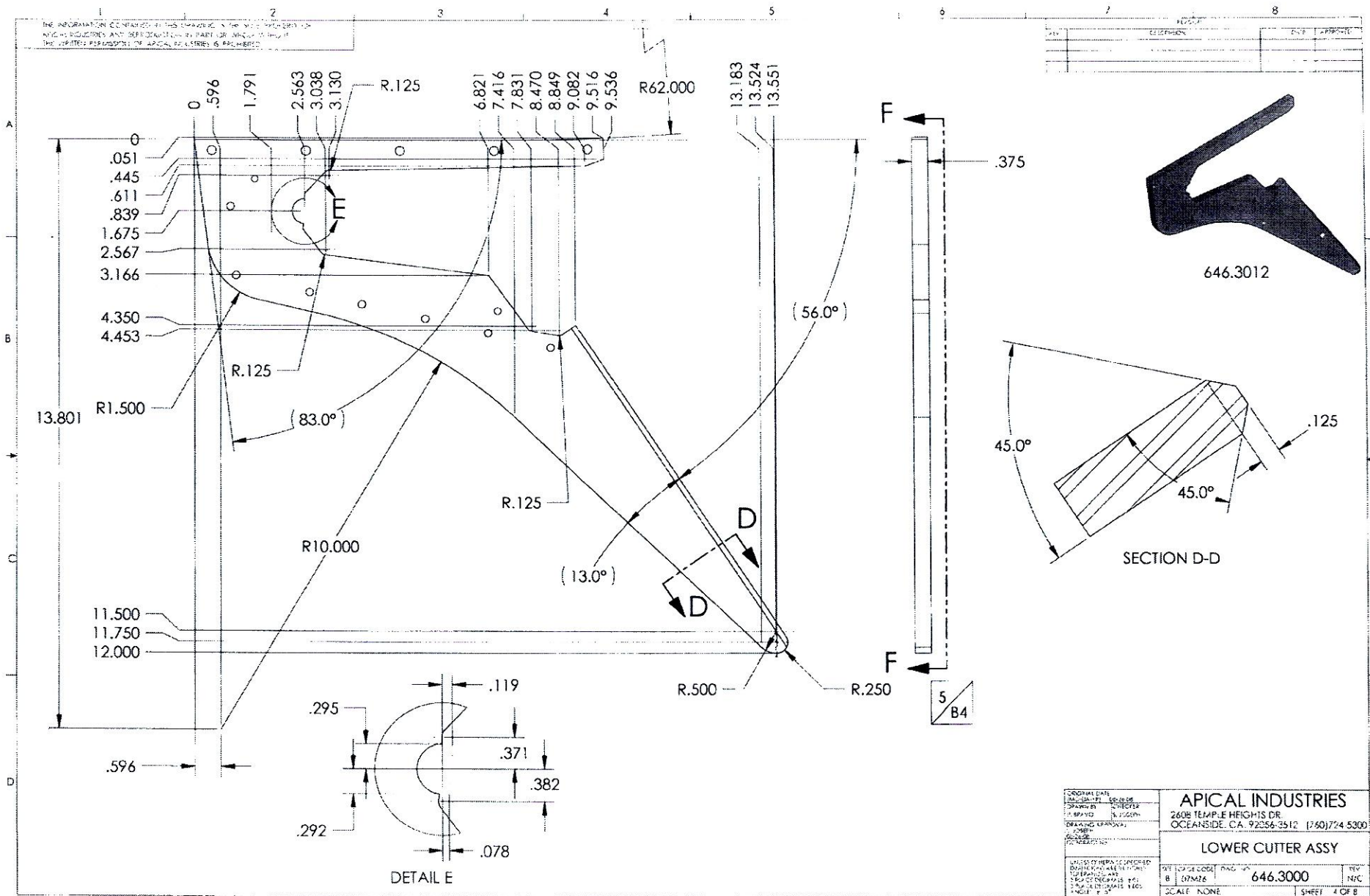
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REV	DESCRIPTION	DATE	APPROVED



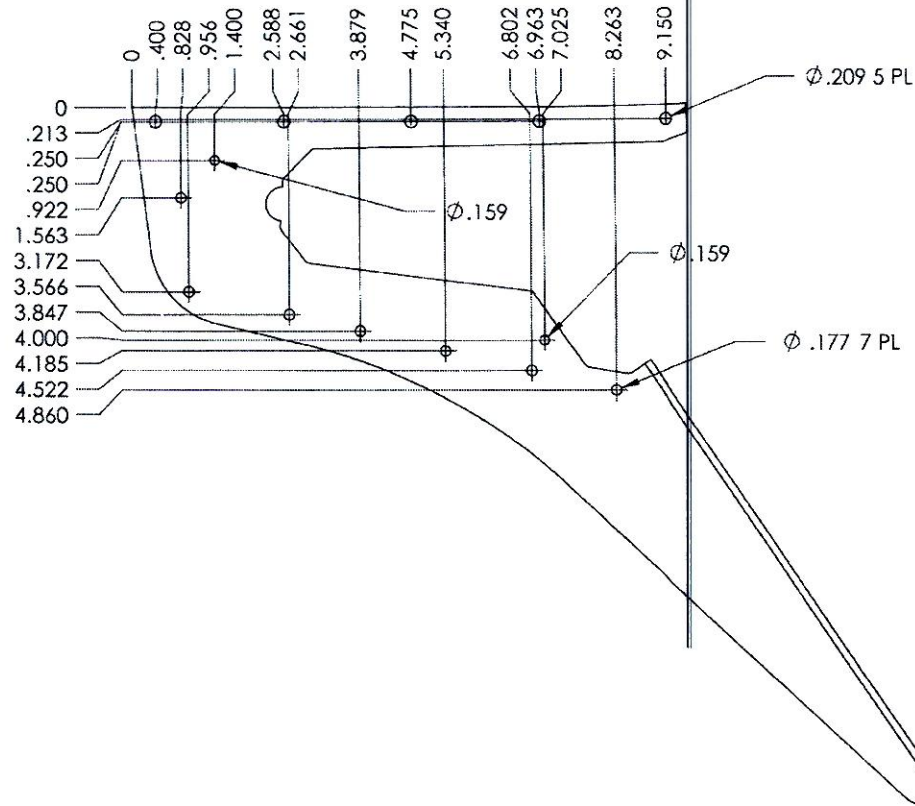
SECTION A-A 2 / C7

ORIGINAL CASE LOCATION: 100-100-100 DRAWING NO: 100-100-100 DATE: 10/1/10 DRAWN BY: J. J. J. CHECKED BY: J. J. J. APPROVED BY: J. J. J. CONTRACT NO: 100-100-100	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OXFORD, CA. 92056-3512 (760) 724-5300 LOWER CUTTER ASSY SCALE: NONE SHEET 3 OF 2
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REV	DESCRIPTION	DATE	APPROVED

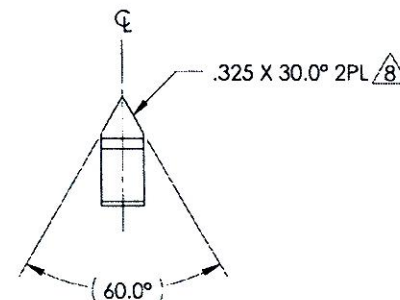
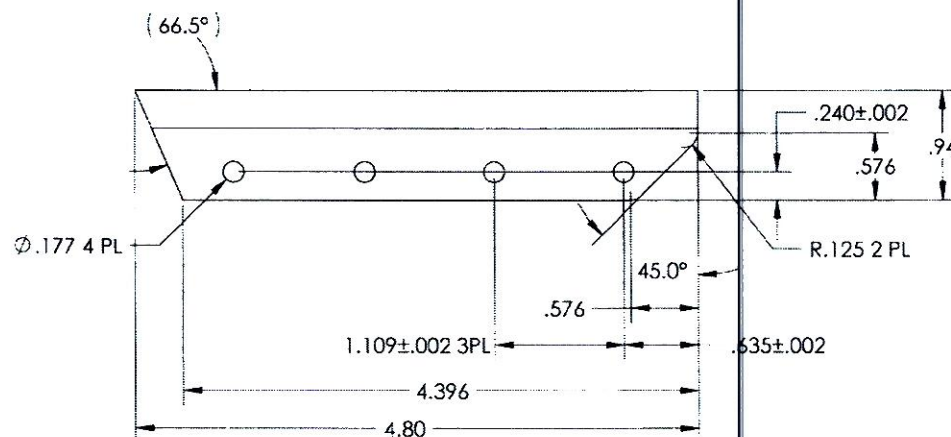
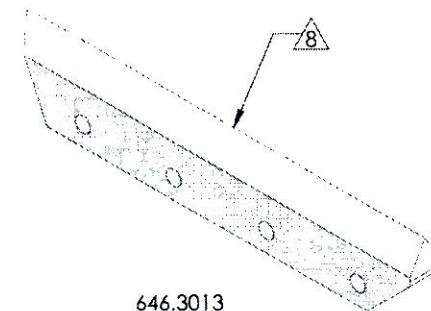


SECTION F-F 4
B6

ORIGINAL DATE REV. 01/10/10		APICAL INDUSTRIES	
DRAWN BY J. BRAY		2608 TEMPLE HEIGHTS DR.	
CHECKED BY J. BRAY		OCEANSIDE, CA. 92056-3512 (760)724-5300	
DESIGNED BY J. BRAY		LOWER CUTTER ASSY	
DATE 01/10/10		SCALE NONE	
SHEET 5 OF 6		REV. 01/10/10	
SHEET 5 OF 6		REV. 01/10/10	
SHEET 5 OF 6		REV. 01/10/10	

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APICAL INDUSTRIES ONLY. DIMENSIONS ARE NOT TO BE USED FOR ANY
OTHER PURPOSES WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES.

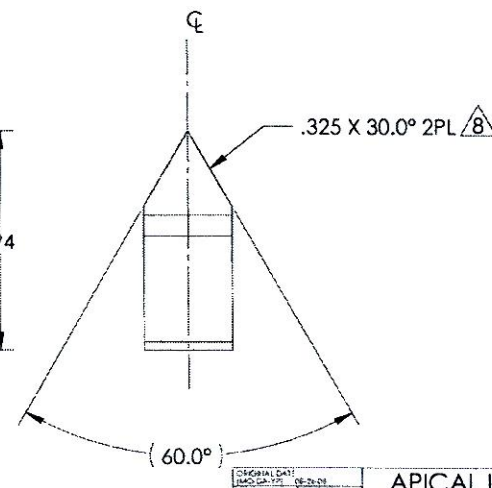
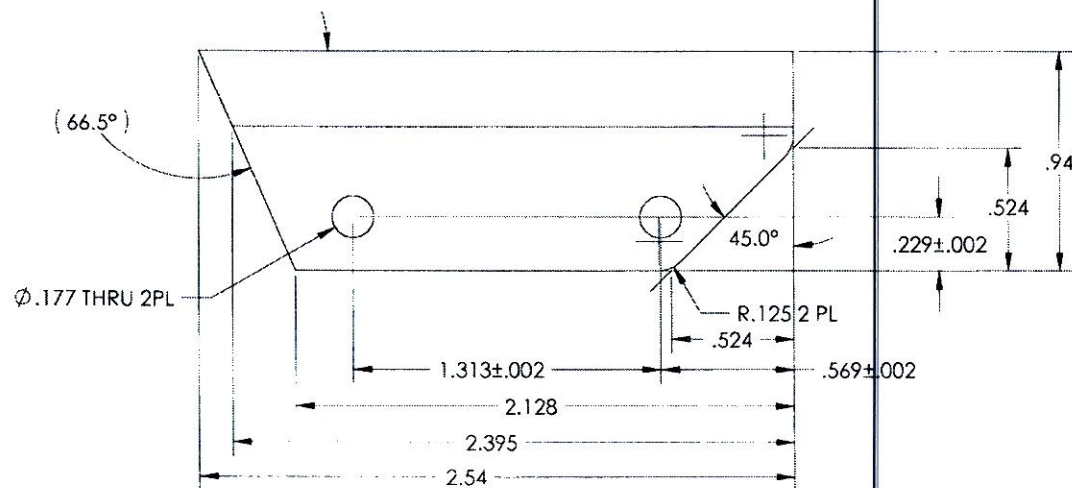
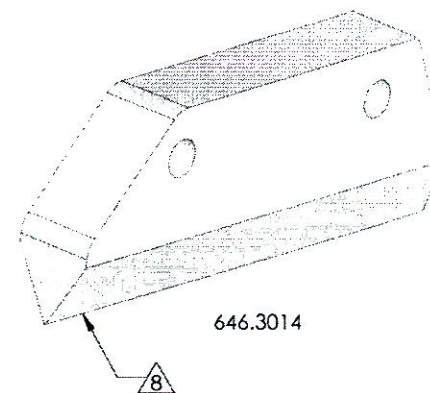
REV.	DESCRIPTION	DATE	APPROVED
1	ORIGINAL		
2	REVISED		
3	REVISED		
4	REVISED		
5	REVISED		
6	REVISED		
7	REVISED		
8	REVISED		



ORIGINAL DATE: DATE: 10/10/08 DRAWN BY: J. J. J. P. J. J. CHECKED BY: J. J. J. APPROVED BY: J. J. J. SCALE: 1:1	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3612 (760) 774-5300 LOWER CUTTER ASSY 646.3000 SCALE: NONE	REV. NO. 8 DATE 07/12/06 BY JVC SHEET 6 OF 8
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REV.	DESCRIPTION	DATE	APPROVED
1	ISSUED FOR PRODUCTION		

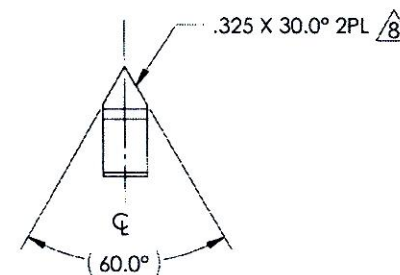
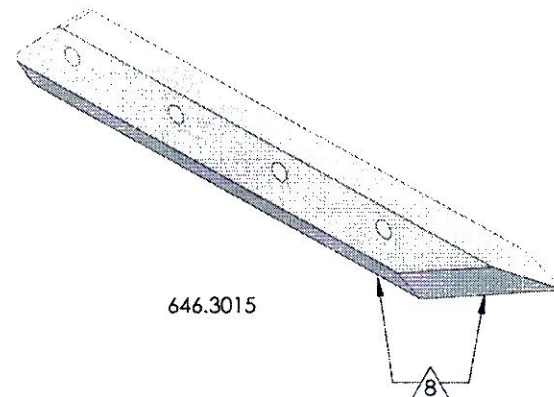
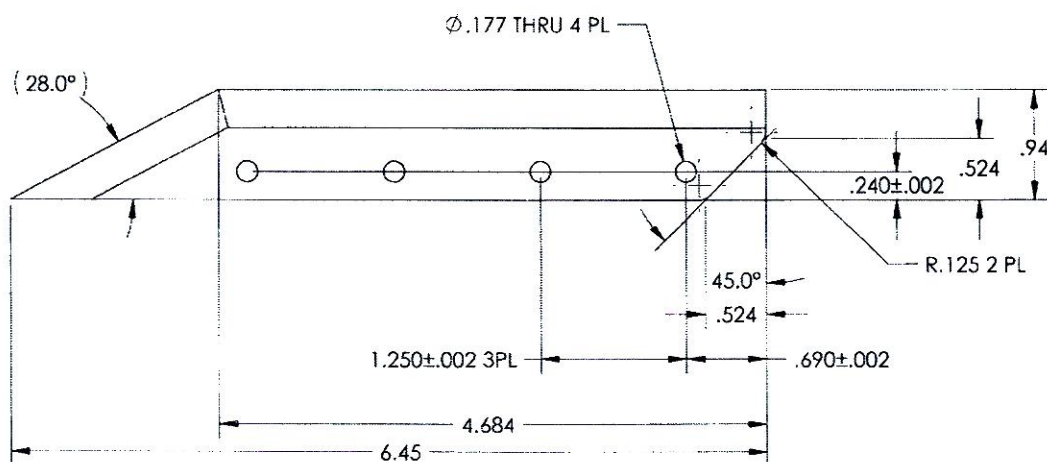
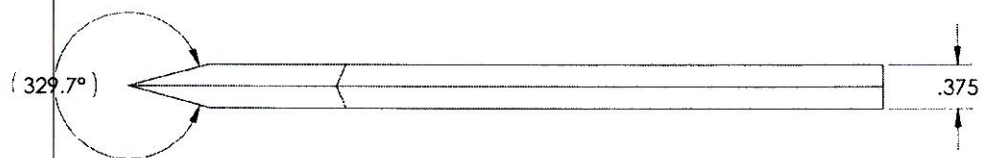


ORIGINAL DATE	DESIGNED BY	REVISION
10/10/00	F. BRAY	1. REVISION
10/10/00	J. COHEN	2. REVISION
10/10/00	J. COHEN	3. REVISION
10/10/00	J. COHEN	4. REVISION
10/10/00	J. COHEN	5. REVISION
10/10/00	J. COHEN	6. REVISION
10/10/00	J. COHEN	7. REVISION
10/10/00	J. COHEN	8. REVISION
10/10/00	J. COHEN	9. REVISION
10/10/00	J. COHEN	10. REVISION
10/10/00	J. COHEN	11. REVISION
10/10/00	J. COHEN	12. REVISION
10/10/00	J. COHEN	13. REVISION
10/10/00	J. COHEN	14. REVISION
10/10/00	J. COHEN	15. REVISION
10/10/00	J. COHEN	16. REVISION
10/10/00	J. COHEN	17. REVISION
10/10/00	J. COHEN	18. REVISION
10/10/00	J. COHEN	19. REVISION
10/10/00	J. COHEN	20. REVISION

APICAL INDUSTRIES
 2608 TEMPLE HEIGHTS DR.
 OCEANSIDE, CA. 92054-3512 (760)724-5900
LOWER CUTTER ASSY
 646.3000
 SCALE: 1:1
 SHEET 7 OF 8

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REV	DESCRIPTION	DATE	APPROVED



DRAWN: DATE CHECKED: 08/08/08 DESIGNED: 08/08/08 APPROVED: 08/08/08 CONTRACT NO.	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300
LOWER CUTTER ASSY 646.3000 SCALE: NONE	SHEET: 8 OF 8